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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,668	- 07/22/2003 -	Laurent Desclos	E107US	6995

7590 12/28/2004

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La Jolla, CA 92038

EXAMINER

ALEMU, EPHREM

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,668

Applicant(s)

DESCLOS ET AL.

Examiner

Ephrem Alemu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract contains less than 50 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 11, 12, 21, 23 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Sadler et al. (US 5,923,305).

Re claims 1, 2, 11, 21 and 23, Sadler discloses a multi-frequency communications device (10) including resonator (i.e., antenna 20), comprising:

a primary resonator (i.e., radiating element 30), the primary resonator (i.e., radiating element 30) for enabling a frequency (i.e., lower frequency band 824 MHz to 894 MHz) at which the communications device operates (Figs. 2-5; Col. 6, lines 51-57;

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Col. 7, lines 50-56; wherein the primary resonator comprises a stub (i.e., radome 20) antenna); and

a parasitic resonator element (40, 50, 52), wherein when excited the parasitic resonator element (40, 50, 52) couples to the primary resonator (i.e., radiating element 30) to alter the frequency at which the communications device (10) operates (Figs. 2-5; Col. 7, line 24- Col. 8, line 58; Col. 9, line 3- Col. 11, line 22).

Re claim 4, Sadler further discloses the primary resonator (i.e., radiating element 30) comprises a coil antenna (i.e., helical wound wire) (Figs. 2-5; Col. 11, line 57-Col. 12, line 13).

Re claim 12, Sadler further discloses the communications device comprises a phone (i.e., radiotelephone 10) (Fig. 1; Col. 5, lines 26-60).

Re claims 25-29, given Sadler multi-frequency communications device (10) including resonator (i.e., antenna 20) as discussed above in claims 1, 11, 12 and 13, the method of using a parasitic resonator with a communications device as claimed in claim 25-28 is inevitable. Further, Sadler discloses the operating characteristic comprises an operating frequency that is less than 1 GHz (i.e., 824 MHz) as claimed in claim 29 (Col. 11, lines 26-29).

4. Claims 1, 5, 9, 12 and 13, are rejected under 35 U.S.C. 102(b) as being anticipated by Sadler et al. (US 6,417,816).

Re claims 1, 5, 12 and 13, Sadler discloses a multi-frequency communications device (i.e., telephone, PDA 10) including resonator (i.e., antenna 50) (Fig. 1; Col. 4, lines 22-34), comprising:

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a primary resonator (i.e., resonating element 60), the primary resonator (i.e., resonating element 60) for enabling a frequency (i.e., lower frequency band) at which the communications device operates and wherein the primary resonator (i.e., resonating element 60) radiates a dipole type radiation pattern (Figs. 1-8; Col. 6, lines 1-18); and

a parasitic resonator element (i.e., tuning strips 84, 86, 88, 90), wherein when excited the parasitic resonator element (i.e., tuning strips 84, 86, 88, 90) couples to the primary resonator (i.e., resonating element 60) to alter the frequency at which the communications device (10) operates (Figs. 1-8; Col. 6, lines 1-18; Col. 8, lines 8-41).

Re claim 9, Sadler further discloses the communications device (10) comprises a housing (100), and wherein the parasitic resonator element (i.e., tuning strips 84, 86, 88, 90) is disposed within or on the housing (Figs. 3-8; Col. 7, line 17- Col. 8, line 46).

5. Claims 1, 6, 7, 8, 14-17, 21, 22 and 24, are rejected under 35 U.S.C. 102(b) as being anticipated by Poilasne et al. (US Pub. 2004/0027286).

Re claims 1, 14, 21 and 24, Poilasne discloses a resonator (40-43) for use with a primary antenna (i.e., main driven element 40) of a phone (i.e., portable wireless communications) (Figs. 5, 6, 16-22, 26; Page 1, paragraph [0006])), comprising:

a parasitic element or parasitic coupling means (i.e., parasitic elements 41-43), wherein when excited the parasitic element or parasitic coupling means (i.e., parasitic elements 41-43) couples to the primary antenna to change an operating characteristic of the primary antenna (Figs. 5, 6, 16-22, 26; abstract; Page 1, Paragraphs [0004] – [0007] & [0024] – [0029]; Page 3, paragraph [0064] – Page 4, paragraph [0068]).

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Re claims 6, 7, 8, 15-17 and 22, Poilasne further discloses parasitic element having spiral configuration when excited the parasitic element (i.e., spiral element) exhibits a quadrupole type of radiation pattern (Fig. 26; Page 4, paragraph [0075]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadler et al. (US 6,417,816).

Re claims 3 and 10, although, Sadler does not specifically suggest use of the antenna in the low frequency is within the 300 to 500 MHz frequency band and the communication device operates at two or more low frequencies.

However, a skilled artisan recognizes that all antennas may be frequency-scaled to any operational band as needed in a particular application. In addition Sadler discloses the antenna capable of operating in two distinct RF bands (abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sadler's antenna for no other reason than providing the first and second radio transmission band of generally in the range of two distinct low frequency bands (i.e., 300 to 500 MHz & 824 to 894 MHz).

8. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poilasne et al. (US Pub. 2004/0027286).

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Re claims 18- 19, and 20, although Poilasne does not mention the phone comprises a multi frequency low band phone, and the at least one of the plurality of resonator elements being coupled to the housing of the phone, Poilasne discloses the antennas being co-located on a circuit board with other electronic components (Page 4, Paragraph [0071]).

However, a skilled artisan recognizes that all antennas may be frequency-scaled to any operational band as needed in a particular application.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Poilasne's antenna for no other reason than providing a phone that comprises a multi frequency low band phone within the range of 1 GHz..

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ying et al. (US Pub. 2003/0098812); Johnston et al. (US 6,424,309); and Egorov et al. (US 6,326,921); also teach similar inventive subject matter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "V. J. [unclear]", with a long horizontal line extending to the right.

EA
12-12-04